



<110> Cosenza, Lawrence W.
<120> SACROMASTIGOPHORIC THERAPEUTIC AGENT DELIVERY SYSTEM
<130> DSI-10402/22
<140> US 10/735,203
<141> 2003-12-12
<150> US 60/433,269
<151> 2002-12-13
<160> 29
<170> PatentIn version 3.2
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<223> Primer for echovirus 1 VP1 protein
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ttacagtat 69

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<211> 42
<212> DNA
<213> Artificial
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<223> Primer for echovirus 1 VP3 protein
<400> 3
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<211> 70
<212> DNA
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<223> Primer for echovirus 1 VP3 protein

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<211> 43
<212> DNA
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<220>
<223> Primer for echovirus 1 VP2 protein

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<211> 67
<212> DNA
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<220>
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<211> 38
<212> DNA
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<220>
<223> Vectorial cloning primer for echovirus 1 VP1

<400> 8
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<210> 9
<211> 41
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<213> Artificial

<220>

<223> Vectorial cloning primer for echovirus 1 VP3

<400> 9
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<210> 10
<211> 39
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<220>
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<400> 10
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<400> 11
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<210> 12
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<400> 12
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<210> 13
<211> 40
<212> DNA
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<220>
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<400> 13
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<210> 14
<211> 96
<212> DNA
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<220>
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<210> 16
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<220>
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<210> 17
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<400> 17
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<210> 18
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<400> 18
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<210> 19
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<400> 19
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<210> 21
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 <212> DNA
 <213> Echovirus 1

<220>
 <221> gene
 <222> (1)..(843)
 <223> Native VP1 shell protein

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 caggcagtac ctggtgatac catgcagact agacatgtga tcaacaatca cgtgagggtca 180
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acagggacca aagaggattc caatagcttc aacaattggg tgattacaac caggcgagtg 300
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 gtggtcatta caagctcgca agatcagtct acatcacaaa accagaatgc accagtgcta 420
 acacaccaga taatgtatgt accaccaggg ggaccatac ccgtaagcgt ggatgattac 480
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<210> 22
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 <212> DNA
 <213> Artificial

<220>
 <223> Recombinant echovirus 1 VP2 shell protein

<400> 22
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 acactaatga taataccctt tgtgcctctg gatttcagcg cgggtgcatc cacatacgtg 720
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<211> 783
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 <222> (1)..(783)
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 <212> DNA
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<220>
 <223> Recombinant echovirus 1 VP3 shell protein

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acg 843

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<211> 213
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<220>
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 Maeda,N.
 <302> No trypanosome lytic activity in the sera of mice producing human
 <303> Mol. Biochem. Parasitol.
 <304> 119
 <305> 2
 <306> 291-294
 <307> 2002-02-01
 <313> (1)..(1047)

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 gcaaatggct atgtggagca cttgtttcgc taccagtgta agaactacta cagactgcdc 180
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 Maeda,N.
 <302> No trypanosome lytic activity in the sera of mice producing human
 <303> Mol. Biochem. Parasitol.
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 <307> 2002-02-01
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 35 40 45

Phe Arg Tyr Gln Cys Lys Asn Tyr Tyr Arg Leu Arg Thr Glu Gly Asp
 50 55 60

Gly Val Tyr Thr Leu Asn Asp Lys Lys Gln Trp Ile Asn Lys Ala Val
 65 70 75 80

Gly Asp Lys Leu Pro Glu Cys Glu Ala Val Cys Gly Lys Pro Lys Asn
 85 90 95

Pro Ala Asn Pro Val Gln Arg Ile Leu Gly Gly His Leu Asp Ala Lys
 100 105 110

Gly Ser Phe Pro Trp Gln Ala Lys Met Val Ser His His Asn Leu Thr
 115 120 125

Thr Gly Ala Thr Leu Ile Asn Glu Gln Trp Leu Leu Thr Thr Ala Lys
 130 135 140

Asn Leu Phe Leu Asn His Ser Glu Asn Ala Thr Ala Lys Asp Ile Ala
 145 150 155 160

Pro Thr Leu Thr Leu Tyr Val Gly Lys Lys Gln Leu Val Glu Ile Glu
 165 170 175

Lys Val Val Leu His Pro Asn Tyr His Gln Val Asp Ile Gly Leu Ile
 180 185 190

Lys Leu Lys Gln Lys Val Leu Val Asn Glu Arg Val Met Pro Ile Cys
 195 200 205

Leu Pro Ser Lys Asn Tyr Ala Glu Val Gly Arg Val Gly Tyr Val Ser
 210 215 220

Gly Trp Gly Gln Ser Asp Asn Phe Lys Leu Thr Asp His Leu Lys Tyr
 225 230 235 240

Val Met Leu Pro Val Ala Asp Gln Tyr Asp Cys Ile Thr His Tyr Glu
 245 250 255

Gly Ser Thr Cys Pro Lys Trp Lys Ala Pro Lys Ser Pro Val Gly Val
 260 265 270

Gln Pro Ile Leu Asn Glu His Thr Phe Cys Val Gly Met Ser Lys Tyr
 275 280 285

Gln Glu Asp Thr Cys Tyr Gly Asp Ala Gly Ser Ala Phe Ala Val His
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Asp Leu Glu Glu Asp Thr Trp Tyr Ala Ala Gly Ile Leu Ser Phe Asp
 305 310 315 320

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325 330 335

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340 345